

L 43003-66 EWP(j)/T RM/WW/JW/WE

ACC NR: AP6031809

SOURCE CODE: BU/0011/65/018/009/0853/0856

AUTHOR: Shopov, D.; Andreev, A.ORG: Institute of Organic Chemistry, BANTITLE: Application of delocalization (MO) method in dehydrogenation¹ of cyclohexane¹ hydrocarbons

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 9, 1965, 853-856

TOPIC TAGS: dehydrogenation, cyclohexane, hydrocarbon, quantum chemistry, reaction rate, phosphate, chemical reaction, organic chemistry

ABSTRACT: The effect of the electronic structure of the final (and possible intermediate) products on the mechanism of the catalytic dehydrogenation of cyclohexane hydrocarbons has been investigated. The rate of mutual conversion of intermediate products of the surface during cyclohexane and decalin dehydrogenation were estimated by quantum-chemical methods. Results show that the delocalization method supplies a reasonable estimate of the conversion rate of intermediary products. The interaction between the surface and the organic molecule seems to be such to permit the latter's electronic structure to manifest itself. The activity of the unsaturated and aromatic compounds follows the binding of the unsaturated intermediary compounds to the catalyst in the form of π -complex (J. J. Rooney, J. Catalysis, 2, 1960, 53), the π -complex facilitating the transition to a higher conjugated system. This paper was presented by Corresponding Member BAN S. Christov on 8 June 1965. Orig. art. has: 1 figure, 2 formulas and 2 tables. [Orig. art. in Eng.] [JPRS: 34,518]

SUB CODE: 07 / SUBM DATE: 08Jun65 / ORIG REF: 001 / SOV REF: 007 / OTH REF: 010

Card 1/1 MLP

SHOPOV, D.M.; DYANKOV, S.S.; NAMETKIN, N.S.

Synthesis and stability of some furylsilanes. Dokl. AN SSSR 161
no.5:1106-1109 Ap (65). (MIRA 18:5)

1. Institut neftekhimicheskogo sinteza im. A.V.Topchiyeva AN
SSSR. 2. Chlen-korrespondent AN SSSR (for Nametkin).

L 22851-66 EWP(j)/T/ETC(m)-6 IJP(c) WW/RM

ACC NR: AP6012336

(A)

SOURCE CODE: UR/0409/66/000/002/0169/0171

AUTHOR: Dyankov, S. S.; Shopov, D. M.

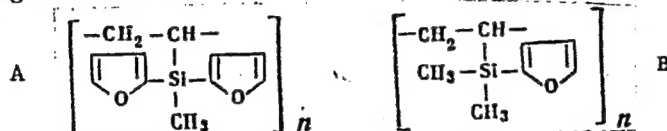
ORG: Institute of Organic Chemistry, Bulgarian Academy of Sciences, Sofia (Institut organicheskoy khimii Bolgarskoy akademii nauk)

TITLE: Synthesis and polymerization of difurylmethylvinylsilane and dimethylfurylvinylsilane

SOURCE: Khimiya geterotsiklicheskih soyedeneniy, no. 2, 1966, 169-171

TOPIC TAGS: difurylmethylvinylsilane, dimethylfurylvinylsilane, polymerization, thermally stable polymer

ABSTRACT: Difurylmethylvinylsilane and dimethylfurylvinylsilane have been synthesized from furyllithium and methyldichloro- and dimethylethoxy-vinylsilane in yields of 50.0 and 58.5%, respectively. Polymerization of the monomers in the presence of 2% ethyllithium yielded solid polymers. The polymers were white powders insoluble in cyclohexane, benzene and chlorobenzene. IR spectroscopy indicated that the polymers have the following structures:



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UDC: 547.722+546.287+543.422+542.956

L 22851-66

ACC NR: AP6012336

The results of differential thermal analysis showed that the polymers withstand temperatures up to 350C. Orig. art. has: 2 figures. [B0]

SUB CODE: 07, 11/ ¹⁶ SUBM DATE: 02Jul65/ OTH REF: 003/ SOV REF: 002/ ATD PRESS: 4229

Card 2/2

OK

L 00911-67 EWP(j) RM

ACC NR: AP6035443

SOURCE CODE: BU/0011/66/019/001/0037/0040

AUTHOR: Shopov, D., Andreev, A., Institute of Organic Chemistry, Bulgarian Academy of Sciences

TITLE: Dehydrogenation of tetralin and cis- and trans-decalin on alpha-iron

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 19, no. 1, 1966, 37-40

TOPIC TAGS: dehydrogenation, x ray analysis, iron compound

ABSTRACT: [English article] In the past the low catalytic activity of iron was pictured in several different ways because insufficient attention was paid to the electronic structure of the catalyst or of the organic molecules. Consequently, the authors carried out experiments in a semimicroflow system. The catalyst was obtained by decomposing the iron oxalate in a hydrogen current by a method described earlier (A. A. Balandin, A. I. Kukina, Chang Hou-Sheng, I. Ya. Kostinskaya, Zh. Fiz. khimii, 37, 1963, 2504). The structure of the α -iron thus obtained was determined by an X-ray structural analysis. The catalyst contained less than 0.0001 p. c. of nickel. Results show that tetralin and decalin dehydrogenation can occur on α -iron. This reaction is obviously closely connected with the molecular structure of tetralin and decalin. The transformation of tetralin in the direction of dehydrogenation only is connected with the energy of localization and delocalization of the respective aromatic systems.

Card 1/2

0921 2158

L 00911-67

ACC NR: AP6035443

This paper was presented by Academician D. Ivanov on October 10, 1965.
Orig. art. has: 4 figures. [JPRS: 36,862]

SUB CODE: 07,20 SUBM DATE: 18 Oct 65 / ORIG REF: 001 / OTH REF: 002
SOV REF: 003

hs

Card 2/2

SHOPOV, D.; GEORGIEVA, K.

The Tyulenovo petroleum, and composition of its cracking fractions.
Pt. 5. Izv Inst khim BAN no.8:225-239 '61.

SHOPOV, D.; IVANOV, S1.

Production of multifractional additions based on the cracking
benzine of the Tyulenovo petroleum. Izv. Inst khim BAN no.8:239-
246 '61.

SHOPOV, D.

Possibilities of applying the random sampling method in the
Bulgarian machine-building enterprises. Mashinostroene 11
no.6:4-7 Je '62.

SHOPOV, Dimitur

Better system of payment for the workers in machine repair shops.
Trud i tseni 5 no.1:22-30 '63.

SHOPOV, Dim.

Some organizational problems respecting labor wages in
machinery line production. Mashinostroene 12 no.6:3-7
Je'63.

SHOPOV, Limitur—

Application of the system of periodic rewards for the labor
wages in machinery construction. Trud tseni 4 no.3:14-24, '62.

SHOPOV, Dimitur

Analysis of the correspondence between the work category and the
workers' category in a machine construction enterprise. Trud tseni
4 no.5:72-79 '62.

SHOPOV, D.M.; FALAZOV, A.N.

Study of the system chromium oxide - oxygen by infrared spectroscopy. *Kin. i kat.* 6 no. 5: 864-868 S.O. '65.

(MIRA 18:11)

1. Institut organicheskoy khimii Bolgarskoy akademii nauk, Sofiya, Bolgariya.

L 53905-65 EWT(m)/EPF(c)/T/EMP(j) Pc-l/Pr-l RM
 ACCESSION NR: AP5011534 UR/0020/65/161/005/1106/1109

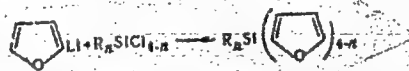
AUTHORS: Shopov, D. M.; Dyankov, S. S.; Nametkin, N. S. (Corresponding member
 AN SSSR) 25
 24
 B

TITLE: Synthesis and stability of some furylsilanes 7

SOURCE: AN SSSR. Doklady, v. 161, no. 5, 1965, 1106-1109

TOPIC TAGS: silane, organic synthesis, chemical stability, organo metallic
 compounds

ABSTRACT: Results are presented of studies on synthesis and chemical stability of some furylsilanes. These compounds cannot be produced by using the organo-mercuric derivatives of furane, which are more readily available and are more stable than the corresponding sodium, lithium, or magnesium organic compounds. Experiments have shown that furylmercury chloride does not react in ether with silicon tetrachloride or diethyldichlorosilane. Heating these reagents for 10 hours in benzene does not yield the desired results. Furylsilanes were synthesized according to the scheme:



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L 53905-65

ACCESSION NR: AP5011534

The properties of the resulting products are tabulated. Furane was metallized by n-butyllithium or phenyllithium. Furryllithium interacted with alkyl- (phenyl-) chlorosilanes with yields of 50-60%. After distillation, the reaction products were subjected to adsorption purification by silica gel, and structures were deciphered by IR spectra. It was found that furylsilane does not change on heating in air to the boiling point. Phenylfurylsilane did not decompose on heating up to 400-450C. The furylsilanes were heated at 30C in glacial acetic acid containing 12.5% HCl. Results show that these compounds are easily decomposed by HCl, trimethylfurylsilane, trifurylmethylsilane, and dimethyldifurylsilane, being almost completely decomposed within half an hour. Trimethylfurylsilane was subjected to an aqueous-methanol solution of perchloric acid in vessels cooled to -70C, but no furane or trimethylchlorosilane was obtained. It is concluded that the furane ring appears at the beginning of the reaction between furylsilanes and hydrogen chloride, this conclusion being supported by the relative slowness of diphenylmethylfurylsilane decomposition. This compound is but 8-9% decomposed after a reaction interval when other furylsilanes are completely decomposed.

Orig. art. has: 2 tables.

ASSOCIATION: Institut neftekhimicheskogo sinteza im. A. V. Topchiyeva, Akademii nauk SSSR (Institute of Petroleum Chemistry Synthesis, Academy of Sciences SSSR)

SUBMITTED: 28NOV64

ENCL: 00

SUB CODES: 00, 00

NO REF SOV: 001

OTHER: 003

Card 2/2 MC

CHOPOV, G.

Adjustment of cylindrical cogwheels. p. 30.
LEKA PROMICHLENOST, Sofiya, Vol. 4, no. 2, 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955,
Uncl.

SHOPOV, G.

Condition of interior transportation in enterprises. p. 18

LEKA PROMISHLENOST. Vol. 5, No. 1, 1956

Sofia, Bulgaria

So. East European Accessions List

Vol. 5, No. 9

September, 1956

SHOPOV, G.

"Technological-designing bureaus in the metal-manufacturing enterprises."

p.11 (Leka Promishlenost, Vol. 7, no. 1, 1958, Sofia, Bulgaria)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 8, August 1958

SHOPOV, I.

Case of suppurative echinococcosis of the thyroid gland with perforation into the trachea and esophagus. Khirurgiia, Sofia 10 no.1: 81-82 1957.

1. (Iz Propedevtichnata khirurgichna klinika pri Visshia meditsinski institut -- Plovdiv).

(ECHINOCOCCOSIS, complications,

thyroid gland, tracheo-esophageal perf. (Bul))

(THYROID GLAND, diseases,

echinococcosis, tracheo-esophageal perf. (Bul))

Journal / Chemical Technology. Chemical Products and H-15
Their Applications. Industrial Organic
Synthesis.

Abs Jour: Ref Zhur-Khimiya, No 3, 1959, 9205.

Author : Shopov, I.

Inst : Not given.

Title : 7-Aminocanthic Acid and Polyamides of Enanths.

Orig Pub: Khimiya i industriya (B'lg.), 1956, 30, No 2,
47-51.

Abstract: A review of methods for producing 7-aminocanthic
acid and polyamidic fiber enanths. Bib. 60 refs.

Card 1/1

163

G/002/60/000/012/003/005
A075/A026

AUTHORS: Mirev, D.; Shopov, I. (Sofia)

TITLE: On a Continuous Process for the Production of Pure Nitrogen (Bulgarian Patent No. 90/1959)

PERIODICAL: Chemische Technik, 1960, No. 12, pp. 714 - 716

TEXT: In this paper a continuous process for the production of pure nitrogen out of industrial nitrogen and out of air is described. Production of pure nitrogen out of industrial nitrogen: the latter is mixed with ammonia and the mixture is passed over active copper heated to 450°C. Under these conditions the oxygen contained in the nitrogen is bound by the copper and the copper oxide thus formed is reduced by the ammonia: $O_2 + 2Cu = 2CuO$, $3CuO + 2NH_3 = 3Cu + 3H_2O + N_2$. Preparation of active copper: asbestos impregnated with 50% copper nitrate is annealed and the CuO thus formed is reduced. This copper binds the oxygen already at 180°C; the optimum temperature, however, is 450°C. Experiments have shown that industrial nitrogen containing 8.2% oxygen is completely freed from oxygen at gas flow velocities of 300 l/h in the presence of 35 ml active copper. Quality analyses have shown that the oxygen concentration of the purified nitrogen is below

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G/CC2/60/000/012/003/005
A075/A026

On a Continuous Process for the Production of Pure Nitrogen (Bulgarian Patent No. 90/1959)

10-5%. In Figure 1 a scheme of the equipment used in this process is shown: the nitrogen flows through a wash bottle with aqueous ammonia and then through a tube filled with copper. The excess ammonia is removed by washing with diluted sulphuric acid. Eighty-five liters of nitrogen with 8.2% oxygen are purified with 100 ml 24% ammonia solution. Production of pure nitrogen out of air: The above described process can also be applied to the direct production of pure nitrogen out of air. It is necessary, however, to mix the air with part of the nitrogen already produced. The best results are obtained if the mixture consists of 40% air and 60% nitrogen. Three hundred ml 24% ammonia solution are necessary for the production of 100 l pure nitrogen. There are 1 figure and 18 references: 14 German, 1 Bulgarian, 2 American and 1 English.

ASSOCIATION: Chemical Institute of the Bulgarian Academy of Sciences

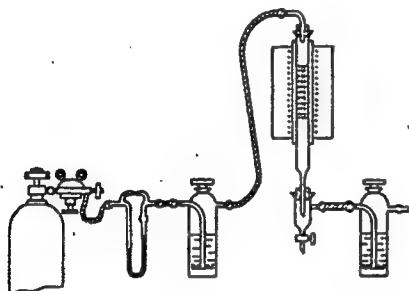
SUBMITTED: June 2, 1960

Card 2/3

G/002/60/000/012/003/005
A075/A026

On a Continuous Process for the Production of Pure Nitrogen (Bulgarian Patent No. 90/1959)

Figure 1: Test arrangement for continuous production of pure nitrogen
(no description given).



Card 3/3

SHOPOV, I.

#240

- 3/3 -

- Section, English Abstracts, No. 20, No. 7, 1962.
- (Continued)
19. "Catalytic Oxidation of Formaldehyde from Oxymethylene,
D. SHOPOV, Chem. Abstr. (English Article) pp 67-69.
 20. "The Effect of Copper Ions on the Pyrolysis of Acetone Pure
Silver Acetate Derivatives," A. SHOPOV (English Article) pp 70-75.
 21. "Kinetic Study of the Oxidation of Acetone Pure
Silver Acetate Derivatives," A. SHOPOV (English Article) pp 75-76.
 22. "The Pyrolysis of Formaldehyde from Oxymethylene,
D. SHOPOV, Chem. Abstr. (English Article) pp 72-73.
 23. "The Pyrolysis of Formaldehyde from Oxymethylene,
D. SHOPOV, Chem. Abstr. (English Article) pp 73-74.
 24. "The Pyrolysis of Formaldehyde from Oxymethylene,
D. SHOPOV, Chem. Abstr. (English Article) pp 74-75.
 25. "The Pyrolysis of Formaldehyde from Oxymethylene,
D. SHOPOV, Chem. Abstr. (English Article) pp 75-76.
 26. "The Pyrolysis of Formaldehyde from Oxymethylene,
D. SHOPOV, Chem. Abstr. (English Article) pp 76-77.
 27. "The Pyrolysis of Formaldehyde from Oxymethylene,
D. SHOPOV, Chem. Abstr. (English Article) pp 77-78.

PANALOTOV, Iv.; SHOPOV, Iv.

A method of preparing porous materials from polyvinyl chloride.
Izv Inst org khim 1:5-12 '64

PANAIOV, Iv.; SHOPOV, Iv.

Preparation of polyamides from furan-2,5-dicarboxylic acid,
1,6-hexamethylenediamine, and ϵ -caprolactam. Izv Inst org khim
1:121-125 '64

III-IV, 1-2, 12zh.

New applications of pigments in medicine. (Trizda Bulg .3 no.3)
84-85 My-Je '64.

MIREV, D.; SHOPOV, Iv.

A continuous method for the production of pure nitrogen. Izv Inst
khim BAN 7:321-332 '60. (EEAI 10:9)

1. Khimicheski institut pri BAN.

(Nitrogen)

S/081/62/000/012/021/063
B166/3101

AUTHORS: Boyadzhiev, L., Shopov, Iv.

TITLE: A new precision laboratory flowmeter

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 12, 1962, 184, abstract
12Ye14 (Izv. In-te obshcha i neorgan. khimiya i organ.
khimiya, v. 5, 1961, 175-179)

TEXT: A new design of laboratory flowmeter is suggested for determining
gas flow rate over a wide range and with great precision. The increase in
accuracy is achieved by means of a considerable increase in the working
length of the manometer tube wound as a coil. This flowmeter is
characterized by its compact form, and it does not lose the liquid it
contains in the event of a possible increase in gas pressure.

[Abstracter's note: Complete translation.]

Card 1/1

DISHLIEV, B.; SHOPOV, N.; KHRISTEV, P.

Clinical aspects, diagnosis and therapy of perforating gastric and duodenal ulcers according to clinical material of 1948-56 inclusively. Khirurgiia, Sofia 11 no.2:150-158 1958.

1. Vissh meditsinski institut I. P. Pavlov - plovdiv Katedra po fakultetska khirurgiia Zav. Katedrata: dots. Ia. Dobrev.
(PEPTIC ULCER, perforation,
hosp. statist. (Bul))

SHOPOV, N.

On surgical technics in median cervical fistulae. Khirurgia,
Sofia 12 no.7:631-633 '59.

1. Visssh meditsinski institut "I.P. Pavlov" - Plovdiv. Katedra
po fakultetska khirurgia. Zav.katedrate: dot. IA. Dobrev.
(NECK dis.)
(FISTULA surg.)

SHOPOV, N.

On Whitehead's operation in the treatment of hemorrhoids. Khirurgiia, Sofia 12 no.12:1078-1080 '59.

1. Vissh meditsinski institut "I.P. Pavlov" - Plovdiv. Katedra po fakultetska khirurgiia. Zav.katedrata: dots. IA. Dobrev.
(HEMORRHOIDS surg.)

DOBREV, Ia. ; MISHEV, P. ; SHOPOV, N. ; KHRISTOV, P.

On the treatment of cholecystitis according to clinical material
from the period of 1954-1959. Khirurgia, Sofia 13 no.2-3:208-211 '60.

1. Iz Katedrata po fakultetska khirurgia pri VMI "I. P. Pavlov"
- Plovdiv.

(CHOLESCYSTITIS surg.)

MISHEV, P.; SHOPOV, N.; KHRISTOV, P.

Changes in the protein picture in acute inflammatory conditions of the gallbladder and bile ducts. Khirurgiia, Sofia 13 no.2-3: 212-213 '60.

1. Iz Katedrata po fakultetska khirurgiia pri VMI "I.P.Pavlov"
- Plovdiv.
 (CHOLECYSTITIS blood)
 (BLOOD PROTEINS)

MISHEV, P., date: 4; DEENICHTIN, P.; SHOPOV, N.

A case of pathological changes in the biliary system and their
relation to the development of hepatic echinococcal cyst.
Khirurgiia (Sofia) 17 no.4:477-482 '64

1. Iz Katedrata po fakul'tetska khirurgiia, Vissh meditsinski
institut "I.P.Favlov", Plovdiv.

SHOPOV, F.

"Baire's Theory of Classes." p.157 (MODISHEV, MATEMATIKA I FIZIKA, Vol. 47, no. 1,
1950/51-1951/52, Sofiya.)

SO: Monthly List of East European / Vol. 3, No. 3 Library of Congress, March ¹⁹⁵⁴
Russian Accessions, 1953, Uncl.

SHOPOV, P.

Observations on the wound following burns. Khirurgiia, Sofia
9 no.5:431-436 1956.

1. Vissh med. inst. I. P. Pavlov--Plovdiv katedra po khirurgichna
propedevtika zav. katedra: prof. A. Chervenakov.
(BURNS, therapy,
(Bul))

SHOPOV, P.

Case of chronic mesenterial thrombosis following isolated
endarteritis obliterans in a woman. Khirurgia, Sofia 9 no.
7-8:722 1956.

1. Iz Propedevtichnata khirurgichna klinika pri Visshia
meditsinski institut "I. P. Pavlov"--Plovdiv).

(THROMBOANGIITIS OBLITERANS, complications,
thrombosis, mesenterial (Bul))

(THROMBOSIS, Etiology and pathogenesis,
mesenterial, caused by endarteritis obliterans (Bul))

SECRET, P.

... of embolotomy of right femoral artery. Khirurgiya, Sofia
... 6:550-551 1957.

... (Iz Khirurgicheskata protsedvichna klinika -- VMI I. P. Pavlova
-- Slaviy)

(ARTERIES, FEMORAL, dis.

embolism, surg. (Bul))

(ARTERIES, surg.

embolotomy in right femoral artery (Bul))

TOSHEV, Iu.; KALEV, N.; SHOPOV, P.

Open and closed injuries of the liver. Khirurgiia, Sofia 13 no.2-3:
203-208 '60.
(LIVER wds. & inj.)

SHOPOV, P.; KALEV, N.

Critical considerations on sympathectomy of the 3d left thoracic ganglion. Khirurgiia, Sofia 14 no.2/3:379-381 '61.

1. Klinika po propedevtika na khirurgichnite zaboliavania, Vissh meditsinski institut "I. P. Pavlov", plovdiv.

(SYMPATHECTOMY)

SHOPOV, P.

Cases of chronic occupational intoxication with monomethyl-
metacrylate. Suvr. med. 13 no.4:49-51 '62.

1. Iz VI poliklinika - Plovdiv (Glaven lekar P. Shopov).
(ACRYLIC RESINS) (OCCUPATIONAL DISEASES)

SHOPOV, Petur

On a differential field. Godishnik fiz 55 no.1:175-197
'60/'61 (publ. '62)

SHOPOV, Petur

Solution of binomial equations in a differential field.
Godishnik fiz mat 56 no.1:1-6 '61/'62 [publ. '63].

STOYANOV, VI.TS; SHOPOV, P.V.

Cases of the so-called periodic disease in the Bulgarian
People's Republic. Klin.med. 39 no.3:141-145 Mr '61. (MIRA 14:3)

1. Zav. terapevticheskim otdeleniyem pro Gorodskoy bol'nitse
Pervomay (for Soyakov). 2. Glavnyy vrach pri poliklinike No.3
Plovdiva (for Shopov).

(BULGARIA--PERIODIC DISEASE)

MOSKOVSKI, St.; NEDIALKOVA, Sl.; TENCHOV, Ia.; KHARKOVSKA, Al.;
SHOPOV, Vl.; IANEV, Sl.

Stratigraphic and lithologic studies on the nucleus
and a part of the mantle of the Mikhaylovgrad anticline
between Chuprenska and Rikovska Bara Rivers, Northwestern
Bulgaria. Trudove vurkhu geol strat 5:29-67 '63.

SHOPOVA, D.V.

Competitive examinations in mathematics for the candidates-students entering the universities in 1961. Mat i fiz Bulg 5 no.3:46-49
My-Je '62.

514

SHOPOVA, D.V.

END

SHOR, E.R., kand.tekhn.nauk

Thermomechanical and thermomagnetic steel treatment abroad.
Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.i tekhn.inform.
16 no.6:86-88 '63. (MIRA 16:8)
(Steel—Hardening)

L 8752-65 EWT(n)/EPT(c)/T/EWP(k)/EWP(b) PF-4/Pr-4 IJP(c)/ASD(m)-3 KJW/JD/
RW/DJ

ACCESSION NR: AP4045812

S/0148/64/000/009/0088/0094

AUTHOR: Pavlov, I. M.; Burkhanov, S. F.; Shor, E. R.; Osipov, E. Ye.;
Chinenov, A. M.

TITLE: Effect of lubricants on cold rolling of thin strips and foil
from VT-14, VT-15, and VT-16 titanium alloys

SOURCE: IVUZ. Chernaya metallurgiya, no. 9, 1964, 88-94

TOPIC TAGS: titanium alloy, VT-14 alloy, VT-15 alloy, VT-16 alloy,
alloy cold rolling, strip rolling, foil rolling, lubrication effect

ABSTRACT: Titanium-base VT-14, VT-15, and VT-16 alloys with a ten-
sile strength and elongation (in the aged condition) ranging from 115
to 160 kg/mm² and from 3 to 10%, respectively, were rolled to an in-
itial thickness of 1.5 mm, vacuum annealed, and then cold rolled in
five passes using various lubricants. The thinnest strip, 0.66-0.69
mm thick, was obtained with the LZ-203 lubricant, a synthetic com-
pound of the type of complex esters containing amines. Castor oil
and an LZ-171 lubricant were next in effectiveness. The rest of the

Card 1/3

L-8752-65

ACCESSION NR: AP4045812

lubricants tested produced no effect. Compared with rolling without a lubricant, the most effective lubricant reduces roll pressure by 20—30%, depending on the alloy rolled. In rolling alloy foils, the strip was first rolled to a thickness of 0.5 mm, vacuum annealed, and then rolled to the minimum thickness possible. Castor oil and a synthetic LZ-142^a lubricant (a triethyleneglycol ester of complex fatty acids with a 10% addition of oleic acid) were the best and were equally effective for foils 1.5—0.5 mm thick, especially in rolling VT-14 alloy. In rolling foil thinner than 0.5 mm, castor oil produced the best results. Foil 0.13 mm thick with a good surface and uncracked edges was obtained. The authors believe that with process annealing and a better rolling equipment, foil thinner than 0.1 mm can be readily obtained. Orig. art. has: 3 figures and 1 table.

ASSOCIATION: Moskovskiy institut stal i splavov (Moscow Institute for Steel and Alloys)

Card 2/3

L 8752-65

ACCESSION NR: AP4045812

SUBMITTED: 28May64

ATD PRESS: 3108

ENCL: 00

SUB CODE: HM, IE

NO REF SOV: 001

OTHER: 000

Card 3/3

SHOR, S.F., hard. tekhn. nauk

Strip rolling on mills with a pendulum mechanism and on the
"Quarto" mill. Ser. tekhn.-ekon. inform. Gos. nauch.-issl. nauch.
i tekhn. inform. 17 no.9:88-90 S '64 (MIRA 18:1)

SHOR, E.R., kand.tekhn.nauk; CHINENOV, A.M.

Rolling thin strips of heat-treated titanium alloys. Biul.tekh.-
ekon.inform.Gos.nauch.-issl.inst.nauch.i tekhn.inform 17 no.11:8-9
N '64. (MIRA 18:3)

L 22347-66 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(k) IJP(c) JD/HW

ACC NR: AP6012728

SOURCE CODE: UR/0136/66/000/004/0072/0073

AUTHOR: Pavlov, I. M.; Burkhanov, S. F.; Shor, E. R.; Osipov, E. Ye.; Chinenov, A. M.

ORG: none

TITLE: Study of resistance to deformation during cold rolling of VT14, VT15, and VT16 alloy strips

SOURCE: Tsvetnyye metally, no. 4, 1966, 72-73

TOPIC TAGS: titanium, titanium alloy, titanium alloy strip, strip rolling, cold rolling, titanium clad alloy/VT14 alloy, VT15 alloy, VT16 alloy

ABSTRACT: The roll pressure and resistance to deformation during cold rolling of clad and unclad VT14, VT15, and VT16 titanium-alloy strips has been investigated. Unclad 1.8 x 250 x 500 mm strips were rolled into strip 1 mm thick at a rate of 30-90 m/min with a reduction of 3-6% in the first and 1-2% in the final passes. All the alloys were relatively easily reduced in the first passes, but in the last passes the edges of VT14 alloy strip began to tear at 40% total reduction. Rolling of this alloy was accompanied by intensive strain hardening. VT15 alloy had less resistance to deformation than VT14 alloy. The lowest pressures were required for VT16 alloy. The average pressure at 30% reduction was 230 kg/mm² for VT14 alloy, 220 kg/mm² for VT15 alloy, and 180 kg/mm² for VT16 alloy. Alloy strips clad on each side with VT1 commercial-grade titanium were easily reduced to 30-40% of the

Card 1/2

UDC: 669.295-124.2:620.1

L 22347-66

ACC NR: AP6012728

initial thickness with the average pressure reduced by 20%. Resistance to deformation of clad and vacuum-annealed VT14 alloy strips decreased by 30%. Thus, VT16 alloy has the best technological properties. Cladding significantly reduced resistance to deformation. Orig. art. has: 2 figures. [AZ]

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 001/ ATD PRESS: 4242

Card 2/2 dda

ACC NR: AP7004811 SOURCE CODE: UR/0413/67/000/001/0169/0169
INVENTOR: Tselikov, A.M.; Shor, E.B.; Rokotyan, Ye.S.; Kruglikov, A.V.;
Gurevich, A.Ye.

ORG: none

TITLE: Two or four-high mill for rolling variable-section sheets and
strips. Class 7, No. 87892

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no.1,
1967, 169

TOPIC TAGS: metal rolling, ~~light alloy rolling, metal~~ rolling mill

ABSTRACT:

This Author Certificate introduces a two or four-high mill for rolling
one or two-way wedge-shaped sheets and strips from steel and light
alloys by means of changing the working rolls' spacing. To increase
rolling mill efficiency, a powerful automatic pressure device is used
which ensures a constant relation between the rotation speed of the
screw-down drives and the working rolls. [AZ]

SUB CODE: 13/ SUBM DATE: 11Mar49/ ATD PRESS: 5116

UDC: none

Card 1/1

SHOR, F.I., red.; GOLIYATKINA, A.G., red.izd-va; ISLENT'YEVA, P.G.
tekhn. red.

[New machines and apparatus for the testing of metals] Novye
mashiny i pribory dlia ispytaniia metallov; sbornik statei.
Moskva, Metallurgizdat, 1963. 199 p. (MIRA 17:1)
(Metals--Testing) (Testing machines)

SHEPELYAKOVSKIY, K.Z.; SHOR, F.I.

Mechanical properties of low-hardenability steels following
hardening and low tempering. Metalloved. i term. obr. met.
no.6:35-42 Je '63. (MIRA 16:6)

(Steel—Testing)
(Induction hardening)

SHOR, F.I.; CHISTOV, S.F.

Hardenability of steels characterized by high critical rates
of hardening. Metalloved. 1 term. obr. met. no. 6:42-45 Je '63.
(MIRA 16:6)

(Steel--Hardening)

SHOR, G. I.

1142. INVESTIGATION OF ANTI-WEAR PROPERTIES OF LUBRICATING OILS WITH RADIOACTIVE INDICATORS. Zaslavskii, Yu. S., Shor, G. I., and Lebedeva, F. B. (Izv. Akad. Nauk SSSR, Otdel. Tekh. Nauk (Bull. Acad. Sci. U.S.S.R., Sect. Tech. Sci.), Nov. 1953, 1598-1608). Experiments are recorded with a friction machine and with a patrol engine whose top piston ring was made radioactive by irradiation, or by deposition of radioactive zinc in a groove machined in its outer surface. Rates of wear were measured by sampling the crank case oil every ten minutes and putting a test tube of it in a ring of six counters.

TRANSLATION D 178252, Nov 53

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SHOR, G. I.

USSR/Engineering

FD 267

Card 1/1

Authors : Zaslavskiy, Yu. S., Shor, G. I., Lebedeva, F. B.

Title : Accuracy of testing engines for wear by the radioactive-indicator method

Periodical : Iz. Ak. Nauk SSSR, OTN, 1, 54-60, Jan 1954

Abstract : Gives method and results of experimental study of accuracy of testing engine for wear by the radioactive-indicator method. Compares results obtained by simultaneous testing of the piston ring of single-cylinder engine L-3/2 for wear by the following methods: radioactive indicators, weight of piston ring, holes stamped in ring, and iron in oil. Four references: 2 U.S.S.R.; all 1953. Graphs, tables.

Institution :

Submitted : December 23, 1953. Presented by Academician V. I. Dikushin.

USSR Engineering -- Metallography

FD-2617

Card 1/1 : Pub. 41-3/21

Author : Zaslavskiy, Yu. S. and Shor, G. I., Moscow

Title : Quantitative determination of machine parts wear by the radioactive tracer method

Periodical : Izv. AN SSSR, Otd. Tekh. Nauk 4, 43-52, Apr 1955

Abstract : Describes two methods developed by the All Union Scientific Research Institute of Petroleum for the quantitative determination of the wear of friction surfaces in machines. One method consists of the removal of oil specimens from the machine, the measurement of their radioactivity, and their reinsertion back into the machine. In the other method a meter is inserted into the oil circuit of the machine. Presents a description of a meter for the automatic, continuous registration of radioactivity in the circulating oil. Develops a method for the rapid evaluation of fuel and lubricant quality on engine wear. Graphs, tables, diagrams of equipment. Fifteen references, 6 USSR.

Institution :

Submitted : December 12, 1954

Ispol'zvaniye Atomnoy Energii v Neftyanoy Promyshlennosti (Use of Atomic Energy in the Petroleum Industry), by Yu. S. Zaslavskiy and G. Shor, Moscow, Gostoptekhizdat, 1956, 88 pp (from a standard - of the USSR State Library imeni V. I. Lenin, No 6P1.6 + 6P7.4.

"Problems of utilizing the achievements of nuclear physics in the petroleum industry are discussed as follows: exploration, prospecting, and development of petroleum fields; processing, transport, storage, and properties of petroleum products. List of references follows each section of the book. Written for engineering and technical workers in all branches of the petroleum industry and readers interested in peaceful uses of atomic energy." (U)

Sum. in: 467